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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,259	04/07/2004	Allen Mott	003C.0004.U2(US)	7506
29683	7590	01/11/2005	EXAMINER	
HARRINGTON & SMITH, LLP 4 RESEARCH DRIVE SHELTON, CT 06484-6212			ORTIZ, ANGELA Y	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application N .

10/820,259

Applicant(s)

MOTT ET AL.

Examiner

Angela Ortiz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-12, 18-22 and 25-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7, 9-12, 18, 20-22, 25-28 and 30-32 is/are rejected.
- 7) ☒ Claim(s) 8, 19 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/7/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28 recites the limitation "right angle contacts" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7, 9-12, 18, 20-22, 25-28, 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onoda, USP 6,187,242 in view of Bickford et al., USP 6,506,083 (of record).

The cited primary reference substantially teaches the basic claimed method of molding a connector for a fuel tank as claimed, comprising the steps of providing at least one electrical conductor 4,5 or 34,35 which are pre-shaped and bent according to the desired configuration of the connector 1 or 31, molding an insulating material around the conductors to form a primary molded body 6 or 36, wherein the primary molded body, readable on a pre-mold housing, is provided with a plurality of ribs such as 8a, 10a and 10b and other unlabeled projections. A secondary molding is formed around the primary molding to form a surrounding structure within which the connector body is disposed after being formed. See figures 2, 3, and 4; also see col. 2, lines 25-45, 47-54; col. 3, lines 30-65. The formation of the ribs creates an interlocking feature, readable on the claimed tortuous path, for impeding the entry of resin or fluid, including HCs, by providing an effective seal.

The cited primary reference does not teach an electrical conductor with a plurality of ribs as claimed.

The added secondary reference teaches as conventional the feature of an electrical connector comprising an electrical conductor 12 having a plurality of ribs 27 and embedded within an insulating material 14. The interlocking structure 22 is

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provided at ribs 27 to provide a tight pressure seal between the conductor and the insulating material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a plurality of ribs on the conductor as shown in the added reference, when performing the process set forth in the primary reference, for forming a conductor with a tight pressure seal to prevent the entry of fluid as desired.

With respect to claims 9 and 20, note that while PEEK is preferred, other conventional materials may be used; see col. 2, lines 46-53, and such would include polyoxymethylene for the benefit of preventing fuel corrosion.

With respect to claims 11, 12, 21, 22, note that it is well known in the art to provide conventional coatings as claimed for providing a more adherent surface, and it would have been obvious to so include such coating in the process above for yielding increased adhesion as desired.

With respect to claims 26-28, see the primary reference USP 6,187,242 at col. 2, lines 23-55 and col. 3, lines 30-65; and figures 2 and 4 of the cited reference, wherein the claimed limitations are shown and taught.

With respect to claims 30-32, see the added secondary reference at col. 4, lines 5-35 wherein the formation of conventional seals is discussed as desired for the connector; it would have been obvious to include any conventional material, including material which remains uncured in the presence of air as claimed, for effecting a seal as desired.

***Allowable Subject Matter***

Claims 8, 19 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USP's 2583026; 4822434; 5527502; 5855834; 6257920; 6287502; 6365085; 6503436; 6780067. Note also Moore et al., USP 4198465, cited by the applicant, for teaching conventional coatings.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela Ortiz whose telephone number is 571-272-1206. The examiner can normally be reached on Monday-Thursday 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Angela Ortiz  
Primary Examiner  
Art Unit 1732

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